THE OIT TIMES

"Turning Industry Visions into Reality"

ISSUE THREE

SUMMER 1998

OIT joins Bethlehem Steel, Alliance to Save Energy in showcasing energy saving technologies for industry

On April 30th, Bethlehem Steel's flagship facility in Burns Harbor, IN hosted over 300 people interested in finding out more about how one of the world's most efficient steel mills got that way. The event highlighted a dozen technologies and programs being used or field tested at the Burns Harbor facility. Visitors and guests participated in live demonstrations and tours as well as classroom seminars. Many of the new technologies on display were developed jointly between the steel industry and OIT.

"Many plants have one or two of these advanced technologies on-line, but few are as far out front as Burns Harbor," observed Denise Swink, Deputy Assistant Secretary of Industrial Technologies at DOE. "That made this event especially effective—it's always a lot more convincing to see a technology in operation rather than just reading or hearing about it. And that helped us generate maximum industry interest in applying these energy-saving technologies."

Highlights were numerous. One demonstration featured nickel aluminide rolls in the facility's annealing furnace. The advanced material provides high strength and long life in the hostile manufacturing environment, resisting oxidation at constant temperatures of more than 1000°C, and providing Bethlehem Steel with a significant decrease in furnace downtime. The rolls' ability to retain surface qualities also reduces marring of processed material and therefore leads to a significant reduction in waste.

Other demonstration highlights included:

- two different advanced combustion technologies including an innovative fuel valve that oscillates fuel flow for lower NOx emissions;
- advanced temperature sensors; and
- a granulated coal injector system in the blast furnace.

"Many of the technologies showcased at Burns Harbor were developed in partnerships between OIT and industry, and seeing them in use—seeing their impact—was very gratifying," said Scott Richlen, leader of OIT's Steel Team.

Steam Challenge effort unveiled

The afternoon of the event began with the formal launching of OIT's Steam Challenge partnership, an effort co-managed with the Alliance to Save Energy. The goal of the partnership is to help inform steam users about the significant opportunities inherent in steam conservation—especially important in an industry like steel that devotes nearly 25% of its energy usage to steam production. Steam Challenge will try to get industrial steam users to consider a more efficient "systems approach" to their boiler and steam distribution needs.

"There's an enormous amount of steam being wasted out there," said OIT Steam Challenge Program Manager Fred Hart. "People have the perception that steam is cheap, but companies had to dump a lot of BTUs into making the steam that they're often just venting into the atmosphere. That waste is costing American industry more than $6 billion a year."

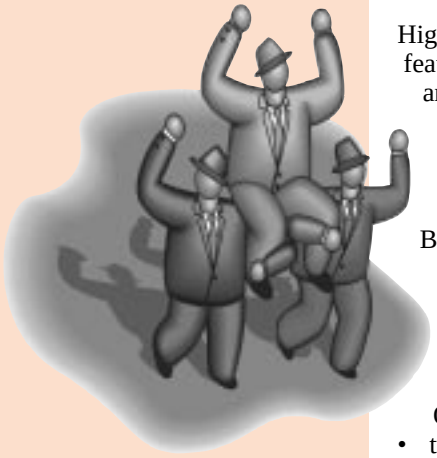
The Steam Challenge roll-out included seminars and a facility tour highlighting numerous steam efficiency systems that are helping Burns Harbor slash its energy costs, which currently total about $100 million annually. For example, guests were especially interested in an innovative, but simple modification to a steam turbine engine that allows the facility to recycle waste steam, thereby reclaiming a significant amount of energy.

"We see this as a clarion call to industry—in this cost-cutting environment, you're wasting a lot of money," said David M. Nemtzow, President of the Alliance to Save Energy. "Working with OIT, we have been able to make a compelling case as to why industry should be paying attention to this. Not only can the payback to the company be excellent, but the aggregate benefits to the environment, such as reducing emissions linked to climate change, can be substantial as well."

Steam Challenge is modeled in many ways after OIT's successful Motor Challenge program, which has also worked with Bethlehem Steel in

(*continued on page 8*)

INSIDE



Quarterly Highlights

Awards

Deputy Assistant Secretary Denise Swink accepted a **Certificate of Appreciation** on behalf of OIT from the National Corn Growers Assoc. The certificate, presented in February at the Commodity Classic in Long Beach, CA, recognized the Office for supporting the development of the emerging renewable bioproduct industry's new strategic vision.

Mrs. Swink also received an award for OIT's IOF programs at the **Industrial Energy Technology Conference** at Texas A&M Univ. in Houston, TX in April.

Engineers working on an OIT-sponsored project at Oak Ridge National Lab recently received **TAPPI's Engineering Conference Best Paper Award** for *"Analysis of Composite Tube Cracking in Recovery Boiler Floors."*

Semiconductor International **Editors' Choice Best Products Award** was given to a global warming gas destruction system based on the OIT-sponsored high temperature radiant burner.

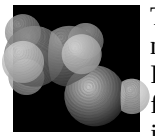
Motor Challenge team members Julia Oliver, (DOE) and Cynthia Putnam (Macro Int'l) received the **1998 Opflow Publications Award** by the American Water Works Assoc. for their paper entitled *"How to Avoid Taking a Bath on Energy Costs."*

OIT received the **President's Alliance Award** from Solar Turbines, Inc. for our contribution to ceramic turbine component development.

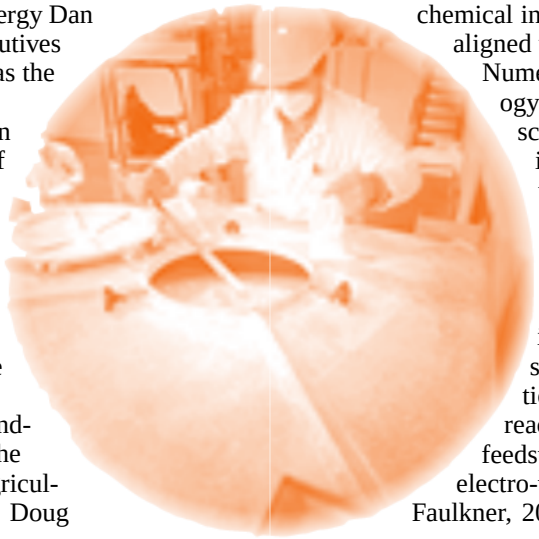
Renewable Bioproducts
Industry steering committee formed

A high-level industry steering committee was formed to work with the **Agriculture Team** and USDA to implement "Plant/Crop-based Renewable Resources 2020." The committee's initial efforts will focus on developing technology roadmaps.... The compact marking the formal partnership between government and industry was signed in February by Assistant Secretary of Energy Dan Reicher, USDA, and executives from such organizations as the National Corn Growers Assoc., American Soybean Assoc., National Assoc. of Wheat Growers, the Center for Waste Reduction Technologies, and the Agricultural Research Institute. Representatives from several other groups have since joined the partnership, adding up to outstanding participation across the chemical, forestry, and agricultural industries. (Contact: Doug Faulkner, 202-586-2119)

Chemicals
24 R&D projects selected



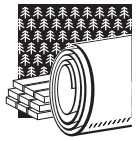
The **Chemical Team** recently announced the recipients of new FY98/99 R&D funding. A total of 24 projects in five "Vision 2020" areas were selected, including catalysis, bioprocessing, separations, computational fluid dynamics, and recycle and feedstock development. The selections were guided by priorities identified in the chemical industry's "Vision 2020" to ensure that OIT's chemical industry R&D portfolio is 100% aligned with the needs of the industry.... Numerous chemical industry technology roadmaps are underway or scheduled to start later this year, including separations (adsorption, membrane, and separative reactors), catalysis, computation fluid dynamics, computational chemistry and materials of construction for the chemical industry, polymer synthesis and separations (distillation, extraction, and crystallization), alternate reaction media, integration of feedstock and energy options, and electro-technologies. (Contact: Doug Faulkner, 202-586-2119)



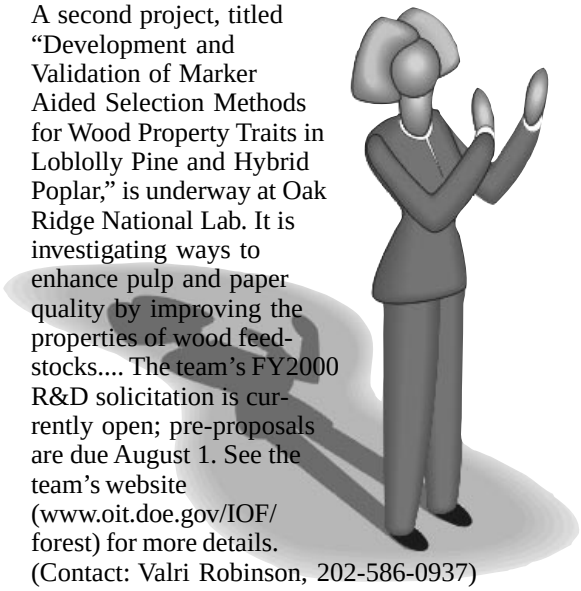
The Industrial **Combustion** Vision has been posted on the Internet at www.oit.doe.gov/combustion. Developed by combustion equipment suppliers and users in industry, the strategic vision identifies technical, economic, and environmental goals and performance targets for boilers, process heaters, furnaces, and burners through the year 2020. The vision is a critical first step in developing a research strategy to achieve advances in combustion technology and systems. (Contact: Gideon Varga, 202-586-0082)

Textile manufacturer Malden Mills hosted a ground breaking ceremony to celebrate the start of construction of its new state-of-the-art cogeneration facility in Massachusetts. The facility will utilize high temperature ceramic composite combustion liners, a technology developed with OIT **Cogeneration** and **CFCC** program assistance.... The program announced that it has made four combined heat and power state grants through the energy or economic development offices of California, Washington, Vermont, and Indiana.... The Federal Energy Technology Center, in cooperation with OIT, has awarded advanced casting projects for improved turbine airfoils to Howmet/Solar Turbines and GE/PCC Airfoils, Inc. (Contact: Patricia Hoffman, 202-586-6074)

Forest Products
Near-term R&D successes identified



At a recent AF&PA Chief Technology Officer's meeting, four projects stemming from the Agenda 2020 partnership between the **Forest Products Team** and AF&PA were identified as near-term successes. One project, "VOC Control in Kraft Mills," is a collaborative effort involving five research organizations led by the Institute of Paper Science and Technology. The research team is creating a new, more accurate model of VOC emissions through extensive field measurements and laboratory analysis. A new membrane that can remove methanol, a major VOC component, is also being tested.



A second project, titled "Development and Validation of Marker Aided Selection Methods for Wood Property Traits in Loblolly Pine and Hybrid Poplar," is underway at Oak Ridge National Lab. It is investigating ways to enhance pulp and paper quality by improving the properties of wood feedstocks.... The team's FY2000 R&D solicitation is currently open; pre-proposals are due August 1. See the team's website (www.oit.doe.gov/IOF/forest) for more details. (Contact: Valri Robinson, 202-586-0937)

EPRI's Michael Tinkleman joins OIT on assignment

OIT often participates in employee exchange programs with national labs and energy-related organizations. One such example is a year-long OIT/Electric Power Research Institute (EPRI) exchange under a DOE/EPRI agreement involving Dan Wiley, OIT Program Manager, and Michael Tinkleman, EPRI Manager of Washington Relations. As part of the exchange, Mr. Wiley is assisting in the development of an electricity technology roadmap at EPRI which manages a collaborative R&D program on behalf of the electricity industry.

Dr. Tinkleman, who has 22 years of experience with EPRI, is currently serving as the EPRI Energy Fellow in OIT where he is actively participating in OIT's steel and aluminum teams. He is the first person from EPRI to go to a Federal agency. He notes that, "It is much easier to work with an organization once you've been a part of it. I now have a much better understanding of OIT programs and what they're trying to accomplish." At the same time, Dr. Tinkleman's understanding of EPRI's operations will be useful in furthering collaboration between the two organizations. He observed that, "There is much we can learn from one another in areas such as leveraging resources and technology transfer."

OIT is always interested in considering well-qualified individuals for temporary assignments. If you have an interest in a possible employee exchange temporary assignment, please contact *The OIT Times* Managing Editor, Lou Sousa, at 202-586-9236.

The **Sensors and Controls** program has issued an R&D solicitation for the development of an integrated laser ultrasonic system. The solicitation calls for projects related to the development of laser ultrasonic technologies for in-process measurements of temperature, thickness, and material properties. Initial applications will be in the steel industry, with applications in other Industries of the Future to follow. The workshop report and solicitation information both can be accessed via the OIT home page at www.oit.doe.gov.... Based on needs identified in industries' roadmaps, OIT has developed a draft Program Plan for sensors and controls. Copies of the initial draft are available from S&C Program Manager Eric Lightner. (Contact: Eric Lightner, 202-586-8130)

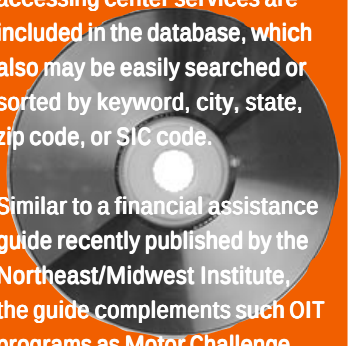
The **Continuous Fiber Ceramic Composite (CFCC)** program is working with Textron to evaluate nitride-bonded, SiC-reinforced immersion tubes at General Motors' Advanced Development Laboratory in Saginaw, MI. The state-of-the-art tubes can replace monolithic ceramic tubes in aluminum casting furnaces, increasing performance life and reducing costly downtime. (Contact: Merrill Smith, 202-586-3646)

OIT's **Advanced Industrial Materials** program will hold its annual review meeting in Jackson Hole, WY on June 23-25. The meeting brings program partners together to share details of their work and plan for the future. AIM's Guidance and Evaluation Board, composed of industry representatives, will also provide suggestions to OIT. In addition, representatives from The Centers of Excellence for Materials Synthesis and Processing have been invited to attend. The Centers, a partnership effort among several National Labs, will describe their work and expertise in materials areas through poster sessions and oral presentations. (Contact: Charlie Sorrell, 202-586-1514)

Quarterly Highlights

New technical assistance center resource guide aids small, medium-sized manufacturers

OIT and the Alliance to Save Energy have developed *National Inventory of Manufacturing Assistance Programs*, a technical assistance center resource guide. The database, available on disk and on-line at www.oit.doe.gov, identifies more than 300 non-profit national, regional, state and local programs that provide technical assistance to small and medium-sized manufacturers. Contact data, center descriptions, and information on accessing center services are included in the database, which also may be easily searched or sorted by keyword, city, state, zip code, or SIC code.



Similar to a financial assistance guide recently published by the Northeast/Midwest Institute, the guide complements such OIT programs as Motor Challenge, NICE³, Steam Challenge, and the Industrial Assessment Centers by providing an inventory of additional resources. In many cases, manufacturers are unaware of these valuable resources, particularly at the state and local levels. Adoption of energy efficiency measures recommended by the centers can enable manufacturers to reduce production costs, improve productivity and meet environmental requirements.

For more information on the resource center guide, or to obtain a copy on disk, please contact Ted Jones at the Alliance to Save Energy at 202-530-2225.

Aluminum

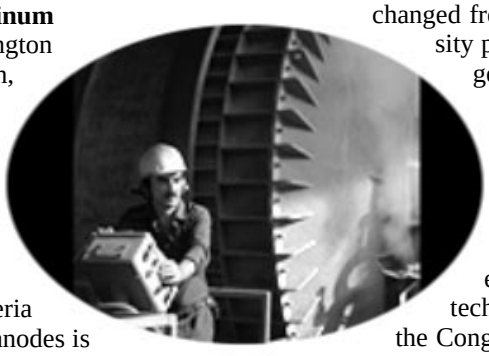
Inert anode roadmap published

OIT's Industries of the Future approach is catching on. The theme of the 12th Annual NCMS Technical Conference and Expo in May was "Achieving Your Technology Vision: The Role of Collaborative R&D." Many of the conference sessions involved OIT's approach to increased competitiveness, pollution prevention and waste reduction. Denise Swink presented an overview of OIT activities in the conference keynote address, and **Aluminum Team** leader Hank Kenchington and OIT staffers Sara Dillich, Charlie Sorrell and Bruce Cranford presented papers on the aluminum, heat treating, welding and chemical roadmaps.... A much-anticipated report defining the aluminum industry's performance criteria for inert (nonconsumable) anodes is now available. It is believed that widespread use of the technology could significantly cut the aluminum industry's energy costs and greenhouse gas emissions. The report is available at the Team's website, www.oit.doe.gov/IOF/aluminum/.... To help clarify the aluminum recycling trends cited in the last issue of *The OIT Times*, the Aluminum Association reported that the aluminum can recycling rate reached 66.5% in 1997. (Contact: Hank Kenchington, 202-586-1878)

Metalcasting

Casting Congress features OIT R&D projects

In May, more than 1,800 casting suppliers, end-users, technology providers and industry experts attended the 102nd American Foundrymen's Society Casting Congress in Atlanta, GA. Harvey Wong, **Metalcasting Team** Leader, addressed the Congress and described the metalcasting industry's proactive role in developing its technology roadmap and R&D portfolio. He outlined how DOE has changed from evaluating university proposals in response to general solicitations, to an integrated process based on industry-identified needs. A true government-industry-academia partnership has emerged.... Eleven technical presentations at the Congress resulted directly from the DOE metalcasting Industries of the Future partnership. Highlights included industry testimonials about the success of the "lost foam" process. The "Advanced Lost Foam Technology" is an R&D project at the University of Alabama that is part of OIT's balanced R&D portfolio to increase energy efficiency, productivity and the competitiveness of the U.S. metalcasting industry. (Contact: Harvey Wong, 202-586-9235)

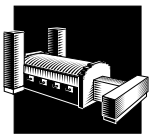


Steel

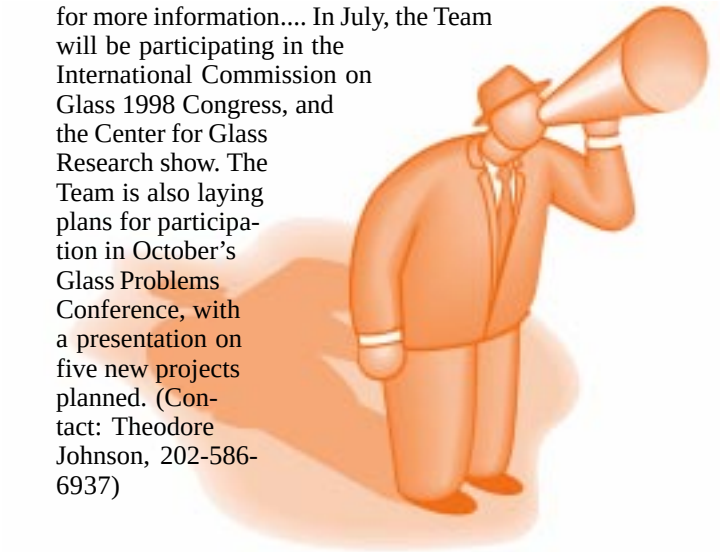
Environmental engineering R&D proposals under review

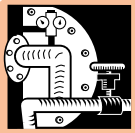
The final steel industry technology roadmap, which was facilitated by OIT's **Steel Team**, has been published. Copies are available at the AISI website at www.steel.org, or from OIT's Resource Center at 202-586-2090.... The Team and its industry partners received more than 50 proposals for FY98/99 funding for projects responsive to the R&D priorities identified in the roadmap. This solicitation specifically focused on the environmental engineering chapter of the roadmap.... The Team is working with EPRI's Center for Materials Production to develop an outreach program for utilities that would enable them to better support their steel industry customers who are significant users of electricity.... The Team assisted its steel industry partners by hosting the unveiling of the prototype UltraLight Steel AutoBody. The ULSAB promises to substantially reduce auto weight, thereby increasing fuel efficiency, while improving safety and driving performance at an affordable cost. A number of OIT Steel Team-funded technologies would be used in the production of a commercial ULSAB. (Contact: Scott Richlen, 202-586-2078)

Glass
"Lab Call 99" announced



Working with its industry partners, the **Glass Team** will soon begin evaluating proposals from DOE's National Lab scientists in response to its "Glass Lab Call 99" R&D solicitation. The 50% cost-shared solicitation seeks to identify possible linkages between National Lab technologies and the glass industry's R&D needs as prioritized in its technology roadmap. To be considered, proposed projects must improve production efficiency, or demonstrate innovative uses of glass. All projects must be National Laboratory-led, and must include partners from U.S. industry. The solicitation closes on June 30. Call Karen Tenke-White at 630-252-9659 for more information.... In July, the Team will be participating in the International Commission on Glass 1998 Congress, and the Center for Glass Research show. The Team is also laying plans for participation in October's Glass Problems Conference, with a presentation on five new projects planned. (Contact: Theodore Johnson, 202-586-6937)





OIT's new **Steam Challenge** program was formally inaugurated at an event at Bethlehem Steel's Burns Harbor, IN mill (see page 1)..... Months before its formal creation, Steam Challenge was providing valuable products and services to industry. Its energy efficiency handbook for steam operators has been extremely popular, and numerous steam users have already benefitted from its innovative ideas. Call Marilyn Burgess at 202-586-2090 for your free copy today. (Contact: Fred Hart, 202-586-1496)

Mike Muller, Eastern Region Field Manager for OIT's **Industrial Assessment Center (IAC)** program, presented a paper at the International Workshop on Industrial Energy Efficiency Policies in the Netherlands. The sponsoring organization, the International Network of Energy Demand Analysis in the Industrial Sector, wanted to learn more about IAC's successful programs and experiences.... IAC's field team at Texas A&M University has completed work with representatives from Ghana to help that country begin its own IAC-type program. (Contact: Chuck Glaser, 202-586-1298)

Motor Challenge hosted its second live teleconference titled "Efficient Motor Systems II: Your Path to Profits" in mid-May. The broadcast featured five real-world success stories. In addition, a panel discussion by independent energy experts provided practical, money- and energy-saving information to an estimated 8,000 engineers and corporate decision makers throughout North America. A "call in" Q&A segment allowed participants to have technical questions addressed by the assembled experts. Call 1-800-862-2086 for follow-up. (Contact: Paul Scheihing, 202-586-7234)

The FY99 call for proposals by OIT's **NICE³** program formally opened on June 15, and continues until October 20. Individual technology demonstration projects will be funded at up to $400,000, with 50% cost-sharing by awardees. The solicitation period will be preceded by a one month "pre-proposal" period during which potential partners may submit 2 page abstracts for review and comment before submitting full proposals.... Recipients of funding for FY98 have also been announced. A total of 10 projects will be funded by NICE³ this year. (Contact: Lisa Barnett, 202-586-2212)

OIT's **Inventions and Innovation** program has set up a series of regional Resource Centers for Innovation. These Centers provide convenient points of contact for inventors and small businesses around the country, and can offer them valuable referrals. Center contacts are as follows:

REGION	CONTACT	PHONE
Far West	Nancy Moore, PNNL	509-372-4299
West	Ann Rydalch, INEEL	208-526-1010
Central	Bin Gupta, NREL	303-275-2960
Southeast	David Jamison, ORNL	423-576-9679
Northeast	Julie Gorte NE/MW Institute	202-544-5200

With more than 200 R&D pre-proposals in hand, the I&I Program looks forward to an active FY99 proposal season. R&D proposals will be accepted until July 31. Copies of the solicitation are available ONLY through the OIT Resource Center at 202-586-2090, or the OIT home page at www.oit.doe.gov. (Contact: Bertha Crisp, 303-275-4771)

Information Corner

Calendar

Advanced Industrial Materials Annual Program Review, June 23-25, Jackson Hole, WY

Cutting Edge Solutions for Corrosion Control, June 29-July 1, Houston, TX; contact NACE at 281-228-6223, Ceramics

Continuous Fiber Ceramic Composite program working group meeting, July 1, Houston TX; contact Shirley North at 423-574-8860

Int'l Glass Congress, July 5-10, San Francisco, CA

Process Operations Workshop/Intl. Conf. on Foundations of Computer-Aided Process Operations (FOCAPO), July 5-10, Snowbird, UT, Chemicals

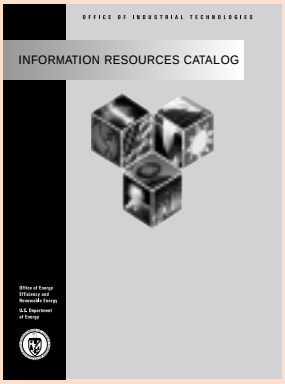
Energy Efficiency Forum (for managers & operations personnel of municipal & industrial water/wastewater systems), Aug 31-Sept 1, Denver, CO; call James Laughlin at (918) 832-9320, Motor Challenge

Energy Performance, Self Sustainability in the Chemical and Forest Products Industries, Sept 1-2, Cincinnati, OH

Electrotechnology in the Chemical Process Industries Workshop, Oct 19-21, Houston, TX

Advanced Turbine Systems Annual Meeting, Nov 2-4, Washington, DC

New catalog provides inventory of OIT's information products and services for industry



OIT has just published an exhaustive ***Information Resources Catalog***. According to Arlene Anderson who managed the catalog's production, "For the first time we've described all of our available publications, videos, software, and other information products in one place. Our partners and customers should find this a particularly useful and practical tool for helping them locate information on improving industrial energy efficiency, reducing costs and preventing waste and pollution."

OIT's products are categorized into five sections: Industries of the Future and Supporting Industries, Crosscutting Technology Programs and Resources, Commercialization Partnerships and Innovative Financing, Plant-level Services, and State and Geographic Projects. Industry vision and roadmap documents are listed first, followed by reports, brochures, newsletters, and fact sheets. Most of the items in the catalog are free of charge.

To get your copy of OIT's new *Information Resources Catalog*, call Marilyn Burgess at 202-586-2090. The catalog is also available at our website where you can order listed products on-line. Go to www.oit.doe.gov, click "News," and then click "OIT Releases New Information Resources Catalog."

OIT R&D Solicitation Schedule

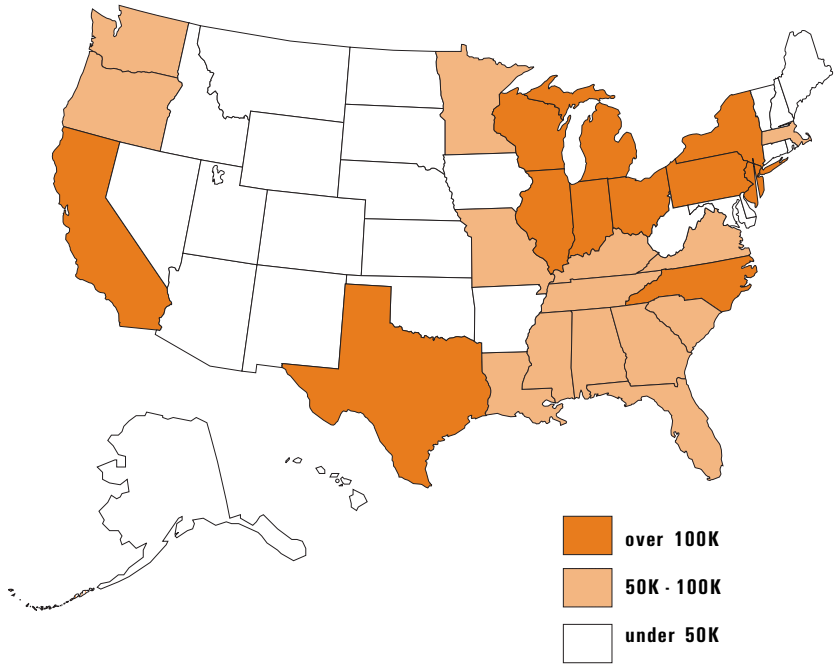
Industry/Program	Request for Proposals	Proposals Due	Selections	Funding*	For Information call 202-586-
Aluminum (FY98)	Past	Closed	Summer 98	$4-5M	Hank Kenchington -1878
Aluminum (FY99/00)	Aug 98	Nov 98	Feb 99	TBD	Hank Kenchington -1878
Forest Products (FY99)	Past	Closed	Oct 98	$3M	Valri Robinson -0937
Forest Products (FY00)	Past**	July 98**	Oct 99	TBD	Valri Robinson -0937
Glass (FY99) National Lab-directed	Past	June 98	Oct 98	$3M	Theo Johnson -6937
Metalcasting	Past	Closed	July 98	$1M	Harvey Wong -9235
Steel (FY 98/99) AISI	Past	Closed	July 98	$5.9M	Scott Richlen -2078
Steel (FY98) University-directed	May/June 98	July 98	Aug 98	$150K	Fred Hart -1496
NICE^3 (FY99)	June 98	Oct 98	Feb 99	$4M	Lisa Barnett -2212
Inventions and Innovation (FY99)	Past	July 98	Oct 98	$2.5M	Sandy Glatt -3897
Sensors and Controls (FY99, tentative)	July 98	Sept 98	Oct 98	$800K	Eric Lightner -8130

*Approximate. ** Preproposals.

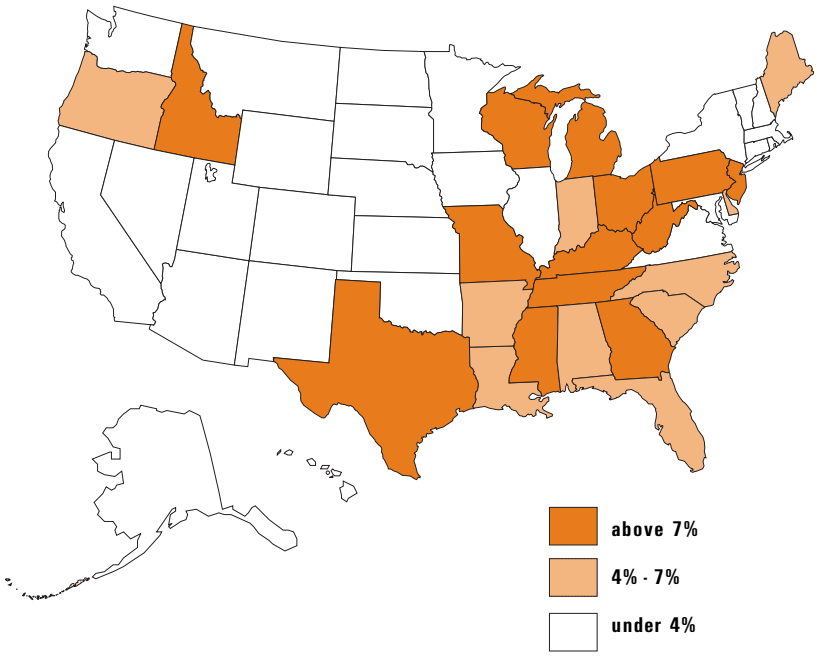
Industry Trends

GUEST EDITORIAL

Industries of the Future[1]: Employment by State, 1996



Industries of the Future[1]: Estimated Direct Contribution to State Economic Output, 1994[2]



[1] Chemicals, Forest Products, Steel, Aluminum, Metalcasting, Glass.

[2] Latest year available.

Sources: Estimates based on data from Bureau of the Census, and Bureau of Economic Analysis, U.S. Department of Commerce.

Taking "Industries of the Future" to the States

by Jim Quinn,
OIT States Team

"I am especially encouraged by your recent efforts to work directly with industries at the state level..."

Sen. John Rockefeller, WV

Senator Rockefeller captured some of the enthusiasm that state officials, industry leaders and OIT staff feel as our newest initiative to implement "Industries of the Future" at the state level begins to take off.

West Virginia, a state where IOFs account for over 11% of economic output with a large jobs multiplier, has begun an effort to mobilize the steel, aluminum, forest products, glass, chemicals and metalcasting industries in the state. Through the leadership of Carl Erwin of West Virginia University, action plans are being developed to jump start industry visions and roadmaps. OIT's helping to coordinate the process at the national level by providing technical information, tools, and assistance.

State-level "IOF" is an idea that is catching on. About a dozen states have shown interest in developing a closer partnership with OIT to begin industry visions and roadmaps. State officials see IOF as having great potential for local economic development and job creation while providing "environmentally friendly" alternatives to traditional "smokestack" industries. OIT participated in DOE's State Energy Program solicitation this spring and awarded about $2.5 million in grants to 16 states to help implement IOF at the state level.

OIT's newest team is overseeing this exciting initiative. Similar to the national level IOF concept where industry leads and owns the process, State IOF initiatives are led and owned by state officials and industry leaders. OIT's role is to network with national labs, field offices, industry contacts and states and provide the technical and planning support our customers in the states want.

(continued from page 1)

improving motor efficiency and motor management systems at the facility. "OIT is developing a good reputation in industry for its beneficial programs, and that credibility is helping us get the word out about Steam Challenge," said Hart. "We want industry to become more aware about the program, and the many ways that steam users and equipment manufacturers can benefit."

A model to help lead the way

The Burns Harbor facility was envisioned as an industry model for efficient plant design and operation. And, according to Tony Martocci, Program Manager for Corporate Energy Affairs at Bethlehem Steel, OIT's assistance has been invaluable in several areas. "We have had a very beneficial partnership with OIT and our colleagues in the steel industry through the Industries of the Future program," said Martocci. "There is a lot of joint cooperation in helping our industry achieve ever-higher levels of energy efficiency and productivity. In my opinion, cooperative government/industry partnerships are a very positive trend and an effective use of dollars and talent. We were pleased to be able to showcase some of the fruits of that labor."

On behalf of OIT, Swink, too, was pleased with the success of the Burns Harbor event. "Our guests went home having learned a great deal about how they can start benefitting right away from many new technologies," she said. "Judging by conversations I had, this event helped open eyes of many folks in and around the steel industry about new ways to bolster energy efficiency and the competitiveness of strategic U.S. industries." Swink added that, "We will definitely be looking into doing more of these showcases in other energy intensive industries that we've been working with."

New Publications, Databases

Title	OIT Team/Area	Availability
OIT Information Resources Catalog	OIT-wide	202-586-2090
Steel Industry Technology Roadmap	Steel	202-586-2090
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Deputy Assistant Secretary for Industrial Technologies,
Denise Swink

Managing Editor,
Lou Sousa

Assistant Editor,
Jill Fisher

Reporter,
Gregg Siegel

Research,
Paget Donnelly, Keith Jamison

Layout and Production,
Melissa Reinhard

Correspondence, including requests for additional copies, or to be added to or deleted from the mailing list, may be directed to:

Lou Sousa
Fax: (202) 586-9234
E-mail: lou.sousa@ee.doe.gov